CLAIMS

What we claim is:

1. Liquid crystal gel for use in the manufacture of transdermal pharmaceutical compositions and healing cosmetics *characterized in that* the gel containing polyoxyethylene-glyceryl-trioleate, propylene-glycol, isopropyl myristate and a hyaluronic acid salt or complex.

2. The liquid crystal gel for use in the manufacture of transdermal pharmaceutical compositions and healing cosmetics according to claim 1 *characterized in that* the amount of polyoxyethylene-glyceryl-trioleate in the gel varies between 26.7 and 40 % (w/w) of the total weight of the gel.

3. The liquid crystal gel for use in the manufacture of transdermal pharmaceutical compositions and healing cosmetics according to claim 1 *characterized in that* the amount of polyoxyethylene-glyceryl-trioleate in the gel varies preferably between 30 and 35 % (w/w) of the total weight of the gel.

4. The liquid crystal gel for use in the manufacture of transdermal pharmaceutical compositions and healing cosmetics according to claim 1 *characterized in that* the amount of polyoxyethylene-glyceryl-trioleate in the gel most preferably is 33.3 % (w/w) of the total weight of the gel.

5. The liquid crystal gel for use in the manufacture of transdermal pharmaceutical compositions and healing cosmetics according to any of claims 1-4 *characterized in that* the amount of propylene-glycol added to the gel varies between 13.3 and 20 % (w/w) of the total weight of the gel.

6. The liquid crystal gel for use in the manufacture of transdermal pharmaceutical compositions and healing cosmetics according to any of claims 1-4 *characterized in that* the amount of propylene-glycol added to the gel varies preferably between 15 and 18 % (w/w) of the total weight of the gel.

7. The liquid crystal gel for use in the manufacture of transdermal pharmaceutical compositions and healing cosmetics according to any of claims 1-4 *characterized in that* the amount of propylene-glycol added to the gel most preferably is 16.7 % (w/w) of the total weight of the gel.

BEST AVAILABLE COPY

THIS PAGE BLANK (USPTO)

8. The liquid crystal gel for use in the manufacture of transdermal pharmaceutical compositions and healing cosmetics according to any of claims 1-7 *characterized in that* the ratio of polyoxyethylene-glyceryl-trioleate and propylene-glycol is 2 : 1.

9. The liquid crystal gel for use in the manufacture of transdermal pharmaceutical compositions and healing cosmetics according to any of claims 1-8 *characterized in that* the amount of isopropyl-myristate added to the gel varies between 5 and 35 % (w/w) of the total weight of the gel.

10. The liquid crystal gel for use in the manufacture of transdermal pharmaceutical compositions and healing cosmetics according to any of claims 1-8 *characterized in that* the amount of isopropyl-myristate added to the gel varies preferably between 17 and 20 % (w/w) of the total weight of the gel.

11. The liquid crystal gel for use in the manufacture of transdermal pharmaceutical compositions and healing cosmetics according to any of claims 1-8 *characterized in that* the amount of isopropyl-myristate added to the gel most preferably is 19 % (w/w) of the total weight of the gel.

12. The liquid crystal gels for use in the manufacture of transdermal pharmaceutical compositions and healing cosmetics according to any of claims 1-11 *characterized in that* sodium-hyaluronate is applied as hyaluronic acid salt.

13. The liquid crystal gels for use in the manufacture of transdermal pharmaceutical compositions and healing cosmetics according to any of claims 1-11 *characterized in that* hyaluronic acid zinc complex is applied as hyaluronic acid complex.

14. The liquid crystal gel for use in the manufacture of transdermal pharmaceutical compositions and healing cosmetics according to any of claims 12-13 *characterized in that* the amount of sodium-hyaluronate or hyaluronic acid zinc complex in the gel varies between 0.01 and 2% (w/w) of the total weight of the gel.

15. The liquid crystal gel for use in the manufacture of transdermal pharmaceutical compositions and healing cosmetics according to any of claims 12-13 *characterized in that* the amount of sodium-hyaluronate or hyaluronic acid zinc complex in the gel varies preferably between 0.05 and 0.15 % (w/w) of the total weight of the gel.

16. The liquid crystal gel for use in the manufacture of transdermal pharmaceutical compositions and healing cosmetics according to any of claims 12-13 *characterized in that*

BEST AVAILABLE COPY

the amount of sodium-hyaluronate or hyaluronic acid zinc complex in the gel most preferably is 0.1 % (w/w) of the total weight of the gel.

17. Transdermal pharmaceutical composition *characterized in that* the composition consists of an estrogen and progestin component as well as a liquid crystal gel containing polyoxyethylene-glyceryl-trioleate, propylene-glycol, isopropyl myristate and a hyaluronic acid salt or complex.

18. The pharmaceutical composition according to claim 17 *characterized in that* the estrogen component is estradiol.

19. The pharmaceutical composition according to claim 18 *characterized in that* the amount of estradiol used varies between 0.001 - 0.7 % (w/w) of the total weight of the composition.

20. The pharmaceutical composition according to any of claims 17-19 *characterized in that* the progestin component is gestodene.

21. The pharmaceutical composition according to claim 20 *characterized in that* the amount of gestodene used varies between 0.001 - 0.5 % (w/w) of the total weight of the composition.

22. The pharmaceutical composition according to any of claims 17-19 *characterized in that* the progestin component is etonogestrel.

23. The pharmaceutical composition according to claim 22 *characterized in that* the amount of etonogestrel used varies between 0.001 - 0.7 % (w/w) of the total weight of the composition.

24. The pharmaceutical composition according to any of claims 17-19 *characterized in that* the progestin component is levonorgestrel.

25. The pharmaceutical composition according to claim 24 *characterized in that* the amount of levonorgestrel used varies between 0.001 - 0.05 % (w/w) of the total weight of the composition.

26. Method of treatment for transdermal hormone replacement therapy *characterized in that* a pharmaceutical composition consists of an estrogen and a progestin component as well as a liquid crystal gel containing polyoxyethylene-glyceryl-trioleate, propylene-glycol, isopropyl myristate and a hyaluronic acid salt or complex is applied onto the surface to be treated.

BEST AVAILABLE COPY

27. The method of treatment according to claim 26 *characterized in that* the hormone replacement therapy is applied

a) for the treatment of moderate to severe vasomotor symptoms of as well as the hot flush, nocturnal sweating and palpitation due to post-menopausal estrogen deficiency;

b) for the treatment of the symptoms of urogenital atrophy, vaginal dryness, recurrent vaginitis, recurrent cystitis, painful intercourse and incontinence due to post-menopausal estrogen deficiency;

c) for the treatment of the psychic symptoms and decreased physical performance manifesting as tiredness, anxiety, panic, irritability, lethargy, depression, mood disorders, sleep disturbances, memory problems, difficulty in mental concentration and decreased libido due to post-menopausal estrogen deficiency;

d) for the treatment of estrogen deficiency due to primary ovary insufficiency or castration;

e) for the treatment of dysmenorrhoea related to hormonal disorders without organic alterations and with hypoplastic endometrium;

f) for the prevention of post-menopausal osteoporosis;

g) for the reduction of the size of uterine myoma and for the treatment of bleeding disorders in post-menopausal women;

h) for the alleviation of the symptoms of post-menopausal estrogen deficiency in unstable hypertension;

i) for the alleviation of the symptoms of post-menopausal estrogen deficiency in women with hypertriglyceridaemia;

j) for the alleviation of the symptoms of post-menopausal estrogen deficiency in women with a history of thromboembolism;

k) for the alleviation of the symptoms of post-menopausal estrogen deficiency in women with hyperandrogenic symptoms (androgenic type alopecia, hirsutism);

l) for the alleviation of the symptoms post-menopausal estrogen deficiency in the early post-operative period of surgical menopause;

m) for the alleviation of the symptoms of post-menopausal estrogen deficiency in post-menopausal women with type 2 diabetes;

BEST AVAILABLE COPY

n) for the alleviation of the symptoms of post-menopausal estrogen deficiency in women, who cannot tolerate the side-effects of oral drug administration.;

o) for the alleviation of the symptoms of post-menopausal estrogen deficiency in women, who cannot tolerate the side-effects associated with transdermal patches;

p) for the alleviation of the symptoms of post-menopausal estrogen deficiency in women, who cannot tolerate the side-effects associated with the use of alcohol-based transdermal gel.

28. Transdermal pharmaceutical composition *characterized in that* the composition consists of one or more active agent components as well as a liquid crystal gel containing polyoxyethylene-glyceryl-trioleate, propylene-glycol, isopropyl myristate and a hyaluronic acid salt or complex.

29. The pharmaceutical composition according to claim 28 *characterized in that* the active agent component is ondansetron.

30. The pharmaceutical composition according to any of claims 28-29 *characterized in that* the amount of ondansetron used varies between 0.001 and 1.2 % (w/w) of the total weight of the composition.

31. The pharmaceutical composition according to claim 28 *characterized in that* the active agent component is terbinafine.

32. The pharmaceutical composition according to any of claims 28 and 31 *characterized in that* the amount of terbinafine used varies between 0.001 and 2.0 % (w/w) of the total weight of the composition.

33. The pharmaceutical composition according to claim 28 *characterized in that* the active agent component is fluconazole.

34. The pharmaceutical composition according to any of claims 28 and 33 *characterized in that* the amount of fluconazole used varies between 0.001 - 2.5 % (w/w) of the total weight of the composition.

35. The pharmaceutical composition according to claim 28 *characterized in that* the active agent component is metronidazole.

36. The pharmaceutical composition according to any of claims 28 and 35 *characterized in that* the amount of metronidazole used varies between 0.001 - 0.9 % (w/w) of the total weight of the composition.

BEST AVAILABLE COPY

37. The pharmaceutical composition according to claim 28 *characterized in that* the active agent component is fentanyl.

38. The pharmaceutical composition according to any of claims 28 and 37 *characterized in that* the amount of fentanyl used varies between 0.001 – 1.0 % (w/w) of the total weight of the composition.

39. The pharmaceutical composition according to claim 28 *characterized in that* the active agent component is nandrolone decanoate.

40. The pharmaceutical composition according to any of claims 28 and 39 *characterized in that* the amount of nandrolone decanoate used varies between 0.001 – 4.5 % (w/w) of the total weight of the composition.

41. The pharmaceutical composition according to claim 28 *characterized in that* the active agent component is nestorone.

42. The pharmaceutical composition according to any of claims 28 and 41 *characterized in that* the amount of nestorone used varies between 0.001 – 2.0 % (w/w) of the total weight of the composition.

43. The pharmaceutical composition according to claim 28 *characterized in that* the active agent component is norethisterone.

44. The pharmaceutical composition according to any of claims 28 and 43 *characterized in that* the amount of norethisterone used varies between 0.001 – 0.5 % (w/w) of the total weight of the composition.

45. The pharmaceutical composition according to claim 28 *characterized in that* the active agent component is eperisone.

46. The pharmaceutical composition according to any of claims 28 and 45 *characterized in that* the amount of eperisone used varies between 0.001 – 0.8 % (w/w) of the total weight of the composition.

47. The pharmaceutical composition according to claim 28 *characterized in that* the active agent component is tolperisone.

48. The pharmaceutical composition according to any of claims 28 and 47 *characterized in that* the amount of tolperisone used varies between 0.001 – 2.0 % (w/w) of the total weight of the composition.

BEST AVAILABLE COPY

49. The pharmaceutical composition according to claim 28 *characterized in that* the active agent component is vinpocetine.

50. The pharmaceutical composition according to any of claims 28 and 49 *characterized in that* the amount of vinpocetine used varies between 0.001 – 0.6 % (w/w) of the total weight of the composition.

51. The pharmaceutical composition according to claim 28 *characterized in that* the active agent component is ketamine.

52. The pharmaceutical composition according to any of claims 28 and 51 *characterized in that* the amount of ketamine used varies between 0.001 – 1.0 % (w/w) of the total weight of the composition.

53. The pharmaceutical composition according to claim 28 *characterized in that* the active agent component is vincristine.

54. The pharmaceutical composition according to any of claims 28 and 53 *characterized in that* the amount of vincristine used varies between 0.001 – 1.0 % (w/w) of the total weight of the composition.

55. The pharmaceutical composition according to claim 28 *characterized in that* the active agent component is vinblastine.

56. The pharmaceutical composition according to any of claims 28 and 55 *characterized in that* the amount of vinblastine used varies between 0.001 – 0.1 % (w/w) of the total weight of the composition.

57. Method of treatment for transdermal antiemetic therapy during strongly emetic chemotherapy and surgical interventions *characterized in that* a pharmaceutical composition consists of ondansetron as well as a liquid crystal gel containing polyoxyethylene-glyceryl-trioleate, propylene-glycol, isopropyl myristate and a hyaluronic acid salt or complex is applied onto the surface to be treated.

58. Method of treatment for transdermal antimycotic therapy *characterized in that* a pharmaceutical composition consists of terbinafine as well as a liquid crystal gel containing polyoxyethylene-glyceryl-trioleate, propylene-glycol, isopropyl myristate and a hyaluronic acid salt or complex is applied onto the surface to be treated.

59. Method of treatment for transdermal antimycotic therapy *characterized in that* a pharmaceutical composition consists of fluconazole as well as a liquid crystal gel containing

BEST AVAILABLE COPY

polyoxyethylene-glyceryl-trioleate, propylene-glycol, isopropyl myristate and a hyaluronic acid salt or complex is applied onto the surface to be treated.

60. Method of treatment for transdermal antimycotic and antibiotic therapy against anaerobic bacteria and trichomonas *characterized in that* a pharmaceutical composition consists of metronidazole as well as a liquid crystal gel containing polyoxyethylene-glyceryl-trioleate, propylene-glycol, isopropyl myristate and a hyaluronic acid salt or complex is applied onto the surface to be treated.

61. Method of treatment for transdermal analgesic therapy of pain syndromes and other acute pain *characterized in that* a pharmaceutical composition consists of fentanyl as well as a liquid crystal gel containing polyoxyethylene-glyceryl-trioleate, propylene-glycol, isopropyl myristate and a hyaluronic acid salt or complex is applied onto the surface to be treated.

62. Method of treatment for transdermal hormone replacement and anabolic therapy *characterized in that* a pharmaceutical composition consists of nandrolone decanoate as well as a liquid crystal gel containing polyoxyethylene-glyceryl-trioleate, propylene-glycol, isopropyl myristate and a hyaluronic acid salt or complex is applied onto the surface to be treated.

63. Method of treatment for transdermal hormone replacement and anabolic therapy *characterized in that* a pharmaceutical composition consists of nestorone as well as a liquid crystal gel containing polyoxyethylene-glyceryl-trioleate, propylene-glycol, isopropyl myristate and a hyaluronic acid salt or complex is applied onto the surface to be treated.

64. Method of treatment for transdermal hormone replacement and anabolic therapy *characterized in that* a pharmaceutical composition consists of norethisterone as well as a liquid crystal gel containing polyoxyethylene-glyceryl-trioleate, propylene-glycol, isopropyl myristate and a hyaluronic acid salt or complex is applied onto the surface to be treated.

65. Method of treatment for transdermal muscle relaxant therapy *characterized in that* a pharmaceutical composition consists of eperisone as well as a liquid crystal gel containing polyoxyethylene-glyceryl-trioleate, propylene-glycol, isopropyl myristate and a hyaluronic acid salt or complex is applied onto the surface to be treated.

66. Method of treatment for transdermal muscle relaxant therapy *characterized in that* a pharmaceutical composition consists of tolperisone as well as a liquid crystal gel containing

BEST AVAILABLE COPY

polyoxyethylene-glyceryl-trioleate, propylene-glycol, isopropyl myristate and a hyaluronic acid salt or complex is applied onto the surface to be treated.

67. Method of treatment for cerebral metabolism- and microcirculation-improving transdermal therapy *characterized in that* a pharmaceutical composition consists of vinpocetine as well as a liquid crystal gel containing polyoxyethylene-glyceryl-trioleate, propylene-glycol, isopropyl myristate and a hyaluronic acid salt or complex is applied onto the surface to be treated.

68. Method of treatment for transdermal analgesic therapy *characterized in that* a pharmaceutical composition consists of ketamine as well as a liquid crystal gel containing polyoxyethylene-glyceryl-trioleate, propylene-glycol, isopropyl myristate and a hyaluronic acid salt or complex is applied onto the surface to be treated.

69. Method of treatment for transdermal analgesic therapy through destroying nerve endings in various pain syndromes *characterized in that* a pharmaceutical composition consists of vincristine as well as a liquid crystal gel containing polyoxyethylene-glyceryl-trioleate, propylene-glycol, isopropyl myristate and a hyaluronic acid salt or complex is applied onto the surface to be treated.

70. Method of treatment for transdermal analgesic therapy through destroying nerve endings in various pain syndromes *characterized in that* a pharmaceutical composition consists of vinblastine as well as a liquid crystal gel containing polyoxyethylene-glyceryl-trioleate, propylene-glycol, isopropyl myristate and a hyaluronic acid salt or complex is applied onto the surface to be treated.

BEST AVAILABLE COPY